WHAT IS CLAIMED IS:

1. A process for recovering 2,4,6-trinitrotoluene and cyclo-1,3,5-trimethylene-2,4,6-trinitramine from a blend of 2,4,6-trinitrotoluene and cyclo-1,3,5-trimethylene-2,4,6-trinitramine, which process comprises:

a) conducting said blend of 2,4,6-trinitrotoluene and cyclo-1,3,5-trimethylene-2,4,6-trinitramine into the upper section of a contact vessel containing a solvent phase at its upper section and a water phase at its lower section wherein solvent is continuously introduced into said vessel above the water phase and wherein water is continuously introduced into said vessel to maintain a predetermined level;

b) dissolving at least a portion of the 2,4,6-trinitrotoluene in the solvent phase, thereby resulting in a solvent/2,4,6-trinitrotoluene solution and wherein solid cyclo-1,3,5-trimethylene-2,4,6-trinitramine particles settle through the solvent phase and into the water phase resulting in an upper solvent/2,4,6-trinitrotoluene phase and a lower cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/water slurry phase;

c) conducting said solvent/2,4,6-trinitrotoluene solution from said contact vessel to a separation zone wherein solvent is separated from said 2,4,6-trinitrotoluene and wherein said solvent is recovered separately from the 2,4,6-trinitrotoluene;

d) conducting said cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/water slurry to a recovery vessel that contains a desensitizing agent effective for desensitizing the cyclo-1,3,5-trimethylene-2,4,6-trinitramine wherein said desensitizing agent is continuously introduced into said recovery vessel;

e) displacing said water in said slurry with said desensitizing agent to result in an upper water/desensitizing agent phase and a lower cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/desensitizing agent phase;

f) collecting said cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/desensitizing agent phase; and

g) conducting said water/desensitizing agent phase to a separation zone wherein the water is separated from the desensitizing agent.

2. The process of claim 2 wherein there is also a binder present with the blend of 2,4,6-trinitrotoluene and cyclo-1,3,5-trimethylene-2,4,6-trinitramine.

3. The process of claim 2 wherein said binder is a wax.

4. The process of claim 1 wherein said solvent is toluene.

5. The process of claim 1 wherein substantially all of the 2,4,6-trinitrotoluene is dissolved in said solvent.

6. The process of claim 3 wherein substantially all of the 2,4,6-trinitrotoluene is dissolved in said solvent.

7. The process of claim 1 wherein the solvent is introduced into said contact vessel at a rate lower than the rate of settling of said particles.

8. The process of claim 6 wherein the solvent is introduced into said contact vessel at a rate lower than the rate of settling of said particles.

9. The process of claim 1 wherein the solvent is recycled to said contact vessel after being separated from said 2,4,6-trinitrotoluene.

10. The process of claim 8 wherein the solvent is recycled to said contact vessel after being separated from said 2,4,6-trinitrotoluene.

11. The process of claim 1 wherein said desensitizing agent is introduced into said recovery vessel countercurrent to the introduction of said cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/water slurry.

12. The process of claim 10 wherein said desensitizing agent is introduced into said recovery vessel countercurrent to the introduction of said cyclo-1,3,5-trimethylene-2,4,6-trinitramine solids/water slurry.

13. The process of claim 1 wherein said desensitizing agent is recycled to said recovery vessel after being separated from the water.

14. The process of claim 12 wherein said desensitizing agent is recycled to said recovery vessel after being separated from the water.

15. The process of claim 1 wherein said desensitizing agent is isopropyl alcohol.

16. The process of claim 12 wherein said desensitizing agent is isopropyl alcohol.